1.   A CMTS system for receiving signals from, and transmitting signals toward, a High-Frequency Coax plant, the system comprising:

a plurality of normally-active CMTSs each configured to receive and transmit modem-compatible signals;

a plurality of interface modules coupled to the normally-active CMTSs and configured to convey data toward the HFC from the normally-active CMTSs and from the HFC toward the normally-active CMTSs; and

a spare CMTS configured to receive and transmit modem-compatible signals;

wherein at least two interface modules are coupled to each other in a daisy-chain fashion to couple at least a first of the interface modules to the spare CMTS via at least a second of the interface modules to which the first interface module is daisy-chain coupled.

2.   The system of claim 1 further comprising a switch mechanism configured to selectively couple the spare CMTS to at least two interface modules independently of any other of the interface modules.

3.   The system of claim 2 wherein at least one of the at least two interface modules are further coupled to another interface module in a daisy-chain fashion.

4.   The system of claim 2 wherein the switch mechanism is configured to, in response to a normally-active CMTS becoming at least imminently non-active, couple the spare CMTS to an interface module associated with the normally-active CMTS that is at least imminently non-active.

5.   The system of claim 1 wherein each interface module corresponds to a respective normally-active CMTS, the interface modules each including an upstream input port and a downstream output port, and wherein each interface module is configured to couple its downstream output port and upstream input port to its respective normally-active CMTS while the respective normally-active CMTS is operational and to the spare CMTS otherwise.

6.   The system of claim 5 wherein each interface module is configured to couple its downstream output port and upstream input port to its respective normally-active CMTS while bypassing the spare CMTS.

7.   The system of claim 5 wherein the first and second interface modules are selectively coupled to each other in a daisy-chain fashion, the second interface module being configured to decouple the first interface module from the spare CMTS while the second interface module couples its upstream input port and downstream output port to the spare CMTS.

8.   The system of claim 1 wherein the spare CMTS includes a diagnostic cable modem configured to detect errors in the normally-active CMTSs.

9.   The system of claim 8 wherein the diagnostic cable modem is configured to test the normally-active CMTSs.

10.   A CMTS system for receiving signals from, and transmitting signals toward, a

High-Frequency Coax plant, the system comprising:

a plurality of normally-active CMTSs each configured to receive and transmit modem-

compatible signals;

5   a plurality of input/output (I/O) modules each associated with a respective normally-

active CMTS;

a spare CMTS configured to receive and transmit modem-compatible signals; and

coupling means for serially coupling at least two of the I/O modules associated with

normally-active CMTSs to the spare CMTS.

10

11.   The system of claim 10 wherein the coupling means is configured to selectively

couple an input and an output of the spare CMTS to an output and an input of one of the I/O

modules associated with one of the normally-active CMTSs that is at least imminently non-

active.

15

12.   The system of claim 11 wherein the coupling means is configured to selectively

couple to at least a third of the I/O modules associated with a normally-active CMTS

independently of the at least two I/O modules that are serially coupled by the coupling means.

20   13.   A method of providing one-to-N redundancy for N normally-active cable modem

terminal system (CMTS) data transfer units using a spare CMTS, the method comprising:

providing the spare CMTS and the N normally-active CMTS data transfer units;

providing coupling of at least two of the CMTS data transfer units to each other; and

monitoring the normally-active data transfer units for de-activation.

14.   The method of claim 13 further comprising coupling at least one of M of the CMTS data transfer units to the spare CMTS in response to one of the N CMTS data transfer units being at least imminently de-activated, where M is less than N.

15.   The method of claim 14 wherein the at least one of M of the CMTS data transfer units is coupled to the spare CMTS in response to one of the N CMTS data transfer units being de-activated.

16.   The method of claim 14 wherein the at least one of M of the CMTS data transfer units is coupled to the spare CMTS in response to one of the N CMTS data transfer units failing.

17.   The method of claim 14 wherein the at least one of M of the CMTS data transfer units is coupled to the spare CMTS using a one-to-M switch.

18.   The method of claim 13 wherein coupling is provided to the spare CMTS of exactly one of the at least two of the CMTS data transfer units independent of any other CMTS data transfer unit.

19.   The method of claim 13 further comprising:

coupling the spare CMTS to at least a selected one of the at least two CMTS data transfer

units in response to the selected one of the at two CMTS data transfer units being at least

imminently de-activated; and

5   de-coupling from the spare CMTS any CMTS data transfer units disposed electrically

further from the spare CMTS than the selected one of the at least two CMTS data transfer units.

20.   The method of claim 13 wherein the CMTS data transfer units each include a

CMTS and an input/output module, and wherein the providing coupling includes providing

10   daisy-chain coupling of the input/output modules of the at least two CMTS data transfer units.

21.   A CMTS system for receiving signals from, and transmitting signals toward, a

High-Frequency Coax plant, the system comprising:

a plurality of normally-active CMTSs each configured to receive and transmit modem-

15   compatible signals;

a plurality of interface modules coupled to the normally-active CMTSs and configured to

convey data toward the HFC from the normally-active CMTSs and from the HFC toward the

normally-active CMTSs; and

a spare CMTS configured to receive and transmit modem-compatible signals;

20   a switch mechanism configured to selectively couple the spare CMTS to at least two

interface modules independently of any other of the interface modules;

26

wherein at least two interface modules are coupled to each other in a daisy-chain fashion to couple at least a first of the interface modules to the spare CMTS via at least a second of the interface modules to which the first interface module is daisy-chain coupled; and

wherein each interface module corresponds to a respective normally-active CMTS, the interface modules each including an upstream input port and a downstream output port, and each interface module is configured to couple its downstream output port and upstream input port to its respective normally-active CMTS, while bypassing the spare CMTS, while the respective normally-active CMTS is operational and to the spare CMTS otherwise.